NOTES

1. Papers selected for inclusion in General Sessions will be available at the Conference in the following official languages of the United Nations: English, French, Russian and Spanish.

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THE DEVELOPMENT OF SEA FISHERIES AND RESEARCH OF THE MARINE RESOURCES IN PERU

by

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The region along the aride coast of Peru offers few possibilities for the expansion of agriculture. However, the sea which stays under the influence of the Peru current system is of high productivity and offers great opportunities to the development of the industry and economics.

The commercial sea fisheries had a slow development until 1957, when it was strongly speeded up, being based in the exploitation of one species: the anchovy (Engraulis ringens) which contributes with 98% to the total landings. The yearly landings of anchovy increased from 6829 tons in 1951 to 118,728 tons in 1956 and to 4,579,708 tons during 1961. Furthermore, an estimated amount of 3.5 million tons of anchovy is consumed yearly by some 20 million guano birds. This i s the unique known case in the history of world's sea fisheries, where a fish population gives such high production. However, the presently exploited fishing grounds represent only 1/6 of the "cold belt" along the Peruvian coast. All fishery activities are still in development, expanding to all parts of the coast.

The anchovy is being used principally as raw material for fishmeal which enter the foreign trade. The number of reduction plants increased from 27 in 1956 to 118 during 1962 and the fishmeal production went up from 30,900 tons in 1956 to 863,000 tons in 1961. The export value of the fish products attained US$ 71 million during 1961. Peru is, at present, the prime fishmeal exporter of the world and the third in the ranking list of world's fishing nations. This represents a particular case in the history of the sea fisheries, as Peru is still a developing country.

Simultaneously with this development, many fishing boatyards were established which construct yearly some 300 wooden and iron boats, all mechanized and having fish location devices. There are also net factories, based on the use of synthetic fibre, and machines factories which construct the installations for the fishmeal plants. An unusual progress took place in many other subsidiary activities. The population of some of the fishing harbors along the coast has doubled in few years and the economic life as a whole has been strongly stimulated.

This strong development brought with it new problems to the country, related to conservation, management, best use of the marine living resources, diversification of the fisheries, export trade, etc.; some of them called

for immediate scientific research. Peru had too few marine scientists and technologists with broad experience in sea fisheries to solve all the problems. Furthermore, the industrial companies were not in the condition to study them on their own. The government needed assistance in certain aspects of fishery policy, having to face the unexpectedly rapid development of the fishing industry, with its strong impact on the world's fishmeal market and the possible effects on the exploited anchovy population of unknown magnitude.

It is for these reasons that the government of Peru and the United Nations Special Fund agreed to establish the Marine Resources Research Institute at Callao, having the Food and Agriculture Organization (FAO) of the United Nations as executive agency. This institute started its activity on July 1960, being the first project of its kind in Latin America. Its staff is formed by 10 FAO-experts and over 40 Peruvian counterparts. Research is being conducted to keep under surveillance the oceanographic, biological, technological, economical and institutional factors which should be taken in consideration in determining, from time to time, the intensity and manner of exploitation to which the marine resource off the coast of Peru, particularly the stock of anchovy, might be subjected, as well as the sperm whales, and all those which are under heavy fishing and hunting pressure.

The creation of this Institute and its activity might be considered an outstanding event, as it shows the evidence of common interests at stake to promote scientific research on natural resources in their ever changing external environment, that could contribute to the culture, science and economics of a developing country. This assistance from part of the United Nations is invaluable and might be extended to other developing countries, where the governments have the desire and good will to ensure future development of the common endeavor.

In conclusion, the rapid growth of the Peruvian sea fisheries and the development of the research on marine resources under the assistance of the United Nations Special Fund and FAO, with their surprising results might serve as a stimulating example to other developing countries.

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